

Date: Mon, 7 Jun 93 17:40:41 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #693  
To: Info-Hams

Info-Hams Digest                      Mon, 7 Jun 93                      Volume 93 : Issue 693

Today's Topics:

1.2 GHz repeaters  
3 Element, 2m Beam Project ?  
Are Ramsey HF kits any good?  
Blue Language Repeaters  
Field Day logging software?  
Field Day Power  
ham radios in movies  
HTX-202 error mode  
J.C. Whitney (2 msgs)  
Pager information sought (2 msgs)  
Velocity of light  
WANTED FT-101ZD, Radios in movies  
what to do with a 3' " Equatorial " dish???

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Mon, 7 Jun 1993 19:10:16 GMT  
From: news.cerf.net!pagesat!spssig.spss.com!feenix.metronet.com!  
marchbg@network.UCSD.EDU  
Subject: 1.2 GHz repeaters  
To: info-hams@ucsd.edu

Anyone have any experience in converting old UHF equipment (tripling) to  
work as a 1.2 GHz repeater?

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|Marc B. Grant, N5MEI           Internet: marcbg@feenix.metronet.com  
|P.O. Box 850472           Telephone: 214-231-3998 (voice)  
Richardson, TX 75085-0472       214-231-0025 (fax)

Date: Mon, 7 Jun 1993 17:11:57 GMT  
From: netcon!bongo!julian@locus.ucla.edu  
Subject: 3 Element, 2m Beam Project ?  
To: info-hams@ucsd.edu

In article <C8969H.9v2@hermes.hrz.uni-bielefeld.de> bsieker@techfak.uni-bielefeld.de (Bernd Sieker) writes:

>|>

>

>Just a question concerning the antenna design itself: can a 2m-beam  
>with only one active element (and probably one director and one reflector)  
>be better than a HB9CV (which I believe has two active elements)?

>

>I don't know how good a HB9CV is in everyday use, I own one, but have no  
>real need for it at the moment. It is said to have a gain similar to  
>a simple four-element Yagi beam. I was wondering if it makes sense at  
>all to build a three-element Yagi for 2m.

The HB9CV antenna is popular in continental Europe, it is not well known in the U.S. I have used an HB9CV and found it an ideal a portable 2M antenna.

But how good is it? Well below are some measurements made at the May 1993 West Coast VHF Conference.

144 Mhz                   Reference: 10.5dBi 4 element Yagi

K3IPW	Rutland F0-15-144 15 element Yagi	39o	17.8 dBi
WB9COY	COY2M12EL	44o	15.5 dBi
KD6BLS	5 Ele Log Periodic	74o	10.5 dBi
K6LMN	Half-Wave Horn-Yagi	74o	9.8 dBi
KD6RDR	5 Ele verical Yagi	101o	9.1 dBi
SM6MOM	2 Ele HB9CV	75o	8.5 dBi
W6DYI	2 Ele Quad	80o	7.7 dBi
K6AAW	Turnstile	n/a	4.0 dBi
W6DYI	Coaxial Vertical	n/a	-3.0 dBi

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Julian Macassey, N6ARE julian@bongo.tele.com Voice: (213) 653-4495  
Paper Mail: 742 1/2 North Hayworth Avenue, Hollywood, California 90046-7142

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Date: Mon, 7 Jun 1993 19:08:57 GMT  
From: news.cerf.net!pagesat!spssig.spss.com!feenix.metronet.com!  
marcbg@network.UCSD.EDU  
Subject: Are Ramsey HF kits any good?  
To: info-hams@ucsd.edu

>In a previous article, m14494@mwvm.mitre.org (Mike White) says:  
>>I know there's been a lot of talk about Ramsey, but I  
>>haven't been following it. Now I'm thinking of building  
>>the HF transmitter and receiver. Does anyone have  
>>any experience or opinions about them? Quality  
>>of kit? Performance of finished sets? Thanks.

I just completed two Ramsey kits - I was doing some experimenting with SCA subcarriers and needed a decoder. Their FM receiver kit is lousy in that it doesn't tune up correctly and it was missing parts.

The SCA subcarrier kit appears to be malfunctioning, I'm not sure what's wrong with it. It too was missing parts which I had to purchase at Radio shack.

I have built many kits before and have quite a bit of experience with this kind of stuff. I was rather dissapointed in Ramsey's quality. The "pre-cut" case I received for the receiver was missing a hole in the rear panel.

As previosuly mentioned, they use cheap parts. Additionallly, the circuit boards are not of the best quality, but this really shouldn't matter too much.

I was not impressed. But, for the price, I guess I shouldn't expect much.  
I would not buy another kit from them.

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|Marc B. Grant, N5MEI           Internet: marcbg@feenix.metronet.com  
|P.O. Box 850472               Telephone: 214-231-3998 (voice)  
|Richardson, TX 75085-0472       214-231-0025 (fax)

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Date: Mon, 7 Jun 1993 21:48:36 GMT  
From: sdd.hp.com!hpscit.sc.hp.com!cupnews0.cup.hp.com!news1.boi.hp.com!  
swalton@network.UCSD.EDU

Subject: Blue Language Repeaters  
To: info-hams@ucsd.edu

I just read the Ham NewsLine and was surprised that there exists a repeater which HAS NOT BEEN TAKEN OFF THE AIR due to inappropriate language. Some say that they have the right to use fowl language whenever and wherever they want. But, when these individuals agree to the rules when joining an organization proceed to go against their word, I feel that they should leave the organization. The FCC permits us to use the airwaves to further radio research or just have fun. When we join, we agree to abide their rules. At some point we feel that these rules are too restricting for your tastes--leave your license at their doorstep and go write graphitti!

-Sean Walton  
KB7RFA  
All disclaimers apply...

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Date: Mon, 7 Jun 1993 22:28:02 GMT  
From: usc!sol.ctr.columbia.edu!usenet.ucs.indiana.edu!reid.ucs.indiana.edu!  
reid@network.UCSD.EDU  
Subject: Field Day logging software?  
To: info-hams@ucsd.edu

{posted for a friend}

What (PC-compatible) software is good for Field Day logging, and where is it available?

73-- Frank W9MKV reid@ucs.indiana.edu

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Date: 7 Jun 93 20:43:02 GMT  
From: flop.ENG.RST.EDU!gaia.ucs.orst.edu!sequent!muncher.sequent.com!  
dale@RUTGERS.EDU  
Subject: Field Day Power  
To: info-hams@ucsd.edu

With Field Day getting close, and planning on running a generator this year, I've gotten to wondering about the power and safety of my equipment. We have a "typical" generator, 4 to 5 KW, and fine to run small appliances and such. We will plug a SB200 amp directly in to the generator, and use an Astron supply to create the 12V for HF rig. Does the Astron act as a clean-up for the 12V so if something goes wrong on the generator end it will protect my radio? Is this something I should be worrying about? I'm not sure if there is any

potential for a problem here, and I'm sure that Jim would be happy to replace the radio if anything went wrong with the generator (right Jim?), but if there is any precaution against problems please let me know.

Thanks & 73, Dale N7PEX

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dale@sequent.com OR uunet!sequent!dale  
Dale Mosby 503-578-9842 N7PEX // Sequent Computer Systems, Inc.  
15450 SW Koll Parkway // Beaverton, Or. 97006-6063

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Date: 7 Jun 93 20:54:26 EDT  
From: pacbell.com!iggy.GW.Vitalink.COM!wetware!spunky.RedBrick.COM!psinntp!  
psinntp!arrl.org@network.UCSD.EDU  
Subject: ham radios in movies  
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, oo7@emx.cc.utexas.edu (Derek Wills) writes:  
>turner@safety.ics.uci.edu (Clark Savage Turner) mentions:  
>  
>>>That brings up an interesting note....I have seen ham radio equipment in  
>>>a number of movies. I wonder if others keep track:  
>  
>>>The Anderson Tapes - saw the kid use an HW-101 to get help.  
>>>The Godzilla movies (forget which one) - saw a Yaesu FTdx 560 used as  
> part of a "death ray" weapon.  
>>>Buckaroo Banzai - this little kid keeps in touch with Buckaroo with a Kenwood  
> TS-520.  
>  
>  
>One of the James Bond movies (Dr No?) has a KW Vanguard in one of the  
>opening scenes - same rig as I used in G-land as a spotty youth. I do  
>realize that this dates me.  
>  
>  
>Derek "007" Wills (AA5BT, G3NMX)  
>Department of Astronomy, University of Texas,  
>Austin TX 78712. (512-471-1392)  
>oo7@astro.as.utexas.edu  
>

There's a piece of Collins gear (KWM-2, perhaps) in  
\_Apocalypse Now\_. You can see it as Martin Sheen enters  
the trailer at the Special Forces camp, near the  
beginning of the movie. Okay, not a "ham" rig...

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Looking for historical information on the GRC-109 radio set.

jkearman@arrl.org

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Date: 7 Jun 1993 21:24:09 GMT

From: olivea!news.bbn.com!bbn.com!levin@decwrl.dec.com

Subject: HTX-202 error mode

To: info-hams@ucsd.edu

Twice this week I've had to reset the transceiver and reenter the memory contents because it somehow got into "ER-1" mode: it blinks "ER-1" in the display and beeps every second or so and nothing I've found gets it out of that mode except a complete reset, which unfortunately also clears all the memories. It's almost 11 months old (I forget whether it had a 3-month or 12-month warrantee). It comes up after reset at 144.200 Mhz, which according to some postings here means it's an early copy.

Question is: did the change (which makes it come up at 146.000 Mhz) fix a bug that would put an end to this "ER-1"? Or is the radio just broken and I should send it in to be fixed? Or do all HTX-202s do this once in a while and I should just live with it? (It's happened maybe four times altogether; this week was the first in many months.)

Thx & 73 / JBL KD10N

=

Nets: levin@bbn.com |

pots: (617)873-3463 |

KD10N (@KB4N.NH.USA) |

"I gotta go."

-- I. Shoales

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Date: 7 Jun 1993 20:40:28 GMT

From: usc!howland.reston.ans.net!darwin.sura.net!haven.umd.edu!cville-srv.wam.umd.edu!ham@network.UCSD.EDU

Subject: J.C. Whitney

To: info-hams@ucsd.edu

Please, could someone who gets the Whitney catalog and HAS the one with the ad for the 2m HT PLEASE TELL ME WHERE IT IS (Catalog number and page number)? Not that I want to buy, but I have been scrounging through my latest one and have yet to find it.

Thanx.

--

73,

----- The  
      \ / Long Original  
Scott Rosenfeld Amateur Radio NF3I Burtonsville, MD | Live \$5.00  
  
      WAC CW/SSB WAS 95% of the way to DXCC -----| Dipoles! Antenna!

-----  
Date: Mon, 7 Jun 1993 23:57:15 GMT  
From: usc!sdd.hp.com!hpscit.sc.hp.com!icon.rose.hp.com!greg@network.UCSD.EDU  
Subject: J.C. Whitney  
To: info-hams@ucsd.edu

Scott Richard Rosenfeld (ham@wam.umd.edu) wrote:  
: Please, could someone who gets the Whitney catalog and HAS the one with  
: the ad for the 2m HT PLEASE TELL ME WHERE IT IS (Catalog number and page  
: number)? Not that I want to buy, but I have been scrounging through my  
: latest one and have yet to find it.  
:

It's in the "New and Hot" section near the front; the first page past the  
glossy section, I believe (it's at home right now, and I'm not). It's  
in the middle of the page on the left hand edge.

BTW, just to show where this rig is aimed at, look at the "features" list:

"Transmit and receive on over 40000 channels"

Gosh, that's a lot more than my old CB rig!

And, as has been noted before, there is NO mention of needing a license.  
Even the VHF Business Band ads include a statement that the license application  
and instructions are included.

Greg KD6KGW

-----  
Date: Mon, 7 Jun 1993 18:40:01 GMT  
From: news.cerf.net!crash!telesoft!garym@network.UCSD.EDU  
Subject: Pager information sought  
To: info-hams@ucsd.edu

In <1993Jun07.151642.13150@uhura.neoucom.edu> wtm@uhura.neoucom.edu (Bill Mayhew)  
writes:

>The pagers operate on various frequencies between ~150 - 160 MHz  
>or ~450 - 460 MHz.

Mine says it is on 929.56250 Mhz. I wonder if it could be put on 927,  
then we could have an amateur paging system :-)

--GaryM

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Date: Mon, 7 Jun 1993 16:36:30 GMT  
From: swrinde!gatech!howland.reston.ans.net!usenet.ins.cwru.edu!nshore!fmsystem!  
andrews@network.UCSD.EDU  
Subject: Pager information sought  
To: info-hams@ucsd.edu

In article <PAN.93Jun6123827@panda.Stanford.EDU> pan@panda.Stanford.EDU (Doug Pan)  
writes:

>I am interested in learning about how pagers/paging systems operate and  
>could start with information such as:

>

> - Are pager deliveries guaranteed? (What if the recipient is in a  
> tunnel?)

> - What frequencies do pagers use?

> - Are coding systems for pagers published anywhere?

> - Any books, magazines, documents, newsgroups for more info?

>

>Email replies are preferred. (pan@lurch.stanford.edu)

Make this a double request, I would also like the above mentioned info.

email to: andrews@fmsystem.ncoast.org

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Date: Mon, 7 Jun 1993 21:38:44 GMT  
From: sdd.hp.com!hpscit.sc.hp.com!cupnews0.cup.hp.com!news1.boi.hp.com!  
swalton@network.UCSD.EDU  
Subject: Velocity of light  
To: info-hams@ucsd.edu

s.b.darack (dara@cbnews1.cb.att.com) wrote:

: In article <C844pJ.GtC@boi.hp.com>, swalton@boi.hp.com (Sean Walton) writes:



: > Wait a minute, sure 'c' is a constant, but it also has units. Otherwise,  
: >  $E=mc^2$  would not work. For, 'E' is in joules (J) and 'm' in grams 'g'.  
: >  
: > -Sean Walton  
: > KB7RFA  
:  
: When expressing "c" in furlongs per fortnight, the unit of mass is not grams!  
: Shel WA2UBK

REALLY?????!!!!

;)   
-Sean

-----  
Date: 7 Jun 1993 20:25:49 GMT  
From: swrinde!cs.utexas.edu!asuvax!chnews!news@network.UCSD.EDU  
Subject: WANTED FT-101ZD, Radios in movies  
To: info-hams@ucsd.edu

In article <2C138DFE.25376@ics.uci.edu>  
turner@safety.ics.uci.edu (Clark Savage Turner) writes:

>That brings up an interesting note....I have seen ham radio equipment in  
>a number of movies. I wonder if others keep track:

Back in the 50's, it was quite a shock to the neophyte ham that I was  
to discover that the equipment racks in the super-secret government  
laboratory shown on "Science Fiction Theater" were really Motorola  
land mobile base stations (the ones with the round speaker grille in  
the center of the door).

Jim Bromley, W5GYJ

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Date: 7 Jun 93 15:21:48 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!noc.near.net!  
transfer.stratus.com!jjmhome!pig!die@network.UCSD.EDU  
Subject: what to do with a 3' " Equatorial " dish???  
To: info-hams@ucsd.edu

In article <01GZ00TOH3IE8WWJJ0@splava.cc.plattsburgh.edu> COLL5788@SNYPLAVA.BITNET  
(Deb Collette) writes:

>  
> About 3 years ago I purchased an Equatorial solid 3' dish at a flea market.  
>I had it stored in the closet and forgot about it for 3 years.  
>I am not sure what the dish was used for

>maybe it was used for some type of satellite data retrieval.

It was used for a spread spectrum C band data distribution service using very small dishes (really the first VSAT ever marketed). It goes with a box about the size and shape of an old table top PC with a row of LEDs on the front that contains the RF modem. The whole thing is called a C-100 Micro Earth Station or something like that.

The C-100 system was introduced in 1982 or so and was the first satellite ground station to use dishes as small as 20 or 24 inches. It uses direct sequence spread spectrum (chip rate of something around 2 mhz) to encode a 19.2 Kbs QPSK data stream. The data stream is multiplexed (by a packet protocol) and contains several to many different lower speed digital services. The rf modem box has one or more serial ports on it that the data comes out of. The box uses a 8085 microprocessor to control the modem and demultiplex the 19.2 kbs data stream and is fully addressible (services can be turned on and off via the satellite link). No particular encryption is used, save the spreading sequence which is fixed.

The use of direct sequence spread spectrum allowed the signal to be broad enough (it's more than 4 mhz wide) so that it did not cause interference to other services that share C band with satcom as would a narrowband conventional QPSK SCPC signal at the same power level (DS signals are very noise like and their energy is more or less evenly distributed over a wide bandwidth). And the coherent despreading and matched filter demodulation allowed the receiver to have an effective noise bandwidth not very different from a conventional 19.2 kbs QPSK demodulator alone so that it would work with the small amount of signal that came from the tiny dish.

But at least as important as this was another property of the despreading ('correlation') process, namely that it converts narrowband signals uncorrelated to the spreading sequence to broadband spread signals with little concentrated energy on any frequency. This meant that signals from transponders on the same frequency on other nearby satellites that were almost as strong at the demodulator because of the limited directivity of the dish (the smaller the dish the less directional it is) would not cause severe enough interference to garble the desired data. Thus tiny dishes could be used even at C band without problems with interference from adjacent satellites closeby on the arc.

Equatorial sold several tens of thousands of the C-100 systems to a variety of customers who needed one to many data distribution (broadcast) services. Included were stock and commodity quotation services (what I think COMTREND ADP is), Reuters and UPI news wires, the US weather service for distributing weather data and weather maps, and various other financial news and data services. The broadcast data

services were successful and profitable for the company, but an attempt to get into the two way C band VSAT business (the C-200) was not successful and eventually got the company into serious financial trouble and it was sold and mostly liquidated (it was recently part of CONTEL).

> On the back side of the dish there is square box about 7" wide and 2" thick  
>full of electronic components. Could this box be the LNA ????  
>Also on that box there is an output where you attach a cable.

The box is a narrow band (6 mhz wide) 3700-4200 mhz tunable double conversion C band low noise downconverter (LNC) with a second IF output that goes down the cable at 70 mhz (the first IF is around 700 mhz if I remember right). Its local oscillators are phase locked to an approximately 12 mhz reference signal that comes up the cable from the rf modem box (the exact frequency determines where between 3.7 and 4.2 Ghz the unit tunes). The unit is powered by 35 volts DC up the cable. The LO phase noise and jitter of these downconverters when fed a clean 12 mhz reference is consistent with demodulating weak QPSK signals.

>It appears to have a fixed LNA.

It has a built in integral LNA with what would now seem a terrible noise figure (120 or 150 K I believe).

>Finally my question is: What can I use this dish for?

It can be used to receive SCPC signals by supplying a suitable 12 mhz synthesized reference. The dish size and LNA noise temp (G/T) is marginal or inadequate for most of these signals as it stands, but it is possible to use the LNC box with an external 30K LNA (yes they are available but mostly as a specialty commercial satellite product) and perhaps a larger dish to receive various narrowband SCPC signals on C band birds without the drift and LO hum and jitter problems that conventional LNBS cause. I know of people who are monitoring the C band ship to shore INMARSAT links using these LNCs this way.

If you have the whole C-100 system, there may still be some C band signals left that you can subscribe to. Some of the RF modems supplied fix tuned 12 mhz xtal references and could tune to only one signal, some other later ones were tunable to other signals as well. UPI uses the C-100 modems with a Ku band LNC and dish for its wire services, and I think the weather service and some of the other former C band users have converted to Ku band as well. Thus the RF modem box may be of some use or value even if the system isn't. And hams and other experimenters who are interested in spread spectrum may find the rf modem unit quite interesting to play with. It could probably be made to work on one of the microwave ham bands quite easily. (The spreading sequence is read out of a RAM downloaded by the microprocessor and

should be changable to the FCC required one, and the boards are not very dense and should be pretty modifyable).

>Given it's size of only 3' reception of C Band TV is slim??

With a really good LNB (25 K) this is just barely possible on the strongest of the new 16 watt birds. The existing LNC is not suitable at all. You might and might not have better luck with another feedhorn too.

>Most likely it's fixed LNA will not work with Video signal Since no H or V polarization?

It uses a waveguide splash feed (reflector on the end of a piece of waveguide that sticks out from the LNC into the focus at the center of the dish). This feed is linear polarized and depending on how the unit is mounted it is either H or V. As it was intended to receive one signal on one transponder, it is not motorized and adjustable.

> If any one has a similar dish by Equatorial please post

I've had one for some years (bought as junk), and recently bought some additional LNCs from Nebraska Surplus Sales (they contain lots of interesting microwave goodies). I've seen others at Dayton and other hamfests.

>By the way the company went out business so no help form them

Last I knew they had been absorbed into CONTEL but were still supplying at least some of the broadcast data services (the two way stuff went bust some time ago).

> > Thanks Deb

David I. Emery, Senior Technical Consultant (and notorious fraud)  
UUCP: ...uunet!jjmhome!pig!die Internet: die@world.std.com

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Date: 7 Jun 93 20:33:30 GMT  
From: swrinde!gatech!europa.eng.gtefsd.com!darwin.sura.net!news-feed-1.peachnet.edu!concert!duke!news.duke.edu!ee.egr.duke.edu!  
jbs@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <12177@prijat.cs.uofs.edu>, <1993Jun7.035635.23121@w8hd.org>, <1993Jun7.141606.5631@alsys.com>du

Subject : Cheap 6m radios (was Re: Warning! FT5200 DANGER!)

In article <1993Jun7.141606.5631@alsys.com> garym@alsys.com (Gary Morris @ignite) writes:

>

>BTW, does anyone make a radio for 6 meters? I'd like to get on 6 but those  
>tri-banders are too expensive.

If you'll be satisfied with FM on 6m, you can get in CHEEP the way I did by buying an old VHF-low band police radio and converting it to 6m. A group here is doing a bunch of them; I bought a G.E. MasterPro and four crystals (RX and TX for the 52.525 national simplex calling freq, and RX and TX for the local 6m repeater) from them for a total of \$75. Conversion took between two and three hours, and the only new parts required were one variable inductor and one capacitor. We also yanked one of the two final amp tubes to tone down output from 100w to 50w, but the radios can easily do 100w. You should be able to find some of these old radios cheap without too much trouble. This particular batch came from a local government surplus sale, I think. They're exceptionally rugged.

-joe KD4LLV

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You spend the night  
Like you were spending a dime  
- Lyle Lovett

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End of Info-Hams Digest V93 #693

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